

Figure 1  
TNF-gamma

1 CCCAATCAAGAGAAATTCATACTATCACCAGTTGGCCGACTTTCCAAGTCTAGTGCAGA 60

61 AATCCAAGGCACCTCACACCTAGAGTTCTTATACCTCTGAGACTCCAGAGGAAAGAACAA 120

121 GACAGTGCAGAAGGATATGTTAGAACCCACTGAAAACCTAGAAGGTTGAAAAGGAAGCAT 180

181 ACCCTCCTGACCTATAAGAAAATTTTCAGTCTGCAGGGGGATATCCTTGTGGCCCAAGAC 240

241 ATTGGTGTATCATTTGACTAAGAGGAAATTATTTGTGGTGAGCTCTGAGTGAGGATTAG 300

301 GACCAGGGAGATGCCAAGTTTCTATCACTTACCTCATGCCTGTAAGACAAGTGTTTTGT 360

361 CCAATGATGAATGGGGAGAAAACAGTTCAGCCAATCACTTATGGGCACAGAATGGAATT 420

421 TGAAGGGTCTGGTGCCTGCCCTTGTTCATACGTAAACAAGAGAGGCATCGATGAGTTTAT 480

481 CTGAGTCATTTGGGAAAGGATAATTCTTGACCAAGCCATTTTCTAAACACAGAAGAAT 540

541 AGGGGGATTCTTAACCTTCATTGTTCTCCAGGATCATAGGTCTCAGGATAAATTAAAAA 600

601 TTTTCAGGTCAGACCACTCAGTCTCAGAAAGGCAAAGTAATTGCCCCAGGTCACTAGTC 660

661 CAAGATGTTATTCTCTTTGAACAAATGTGTATGTCCAGTCACATATCTTCATTTCATTC 720

721 TCCCCAAAGCAGTTTGTAGCTGTTAGGTATATTCGATCACTTTAGTCTATTTTGAAAATG 780

781 ATATGAGACGCTTTTFAAGCAAAGTCTACAGTTTCCCAATGAGAAAATTAATCCTCTTTC 840

1 M R R F L S K V Y S F P M R K L I L F L 20

841 TTGTCTTTCCAGTTGTGAGACAACTCCACACAGCACTTTAAAAATCAGTTCCAGCTC 900

21 V F P V V R Q T P T Q H F K N Q F P A L 40

901 TGCACCTGGGAACATGAAGTGGCCCTGCACCAAGAACCGAATGAAGTATACCAACA 960

41 H W E H E L G L A F T K N R M N Y T N K 60

961 AATTCCTGCTGATCCCAGAGTCGGGAGACTACTTCATTTACTCCAGGTACATTCGGTG 1020

61 F L L I P E S G D Y F I Y S Q V T F R G 80

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Figure 1 (continued)  
TNF-gamma

1021	GGATGACCTCTGAGTGCAGTGAAATCAGACAAGCAGGCCGACCAACAAGCCAGACTCCA	1080
81	M T S E C S E I R Q A G R P N K P D S I	100
1081	TCACTGTGGTCATCACCAAGGTAACAGACAGCTACCCTGAGCCAACCCAGCTCCTCATGG	1140
101	T V V I T K V T D S Y P E P T Q L L M G	120
1141	GGACCAAGTCTGTATGCGAAGTAGGTAGCAACTGGTTCCAGCCCATCTACCTCGGAGCCA	1200
121	T K S V C E V G S N W F Q P I Y L G A M	140
1201	TGTTCTCCTTGCAAGAAGGGGACAAGCTAATGGTGAACGTCAGTGACATCTCTTTGGTGG	1260
141	F S L Q E G D K L M V N V S D I S L V D	160
1261	ATTACACAAAAGAAGATAAAACCTTCTTTGGAGCCTTCTTACTATAGGAGGAGAGCAAAT	1320
161	Y T K E D K T F F G A F L - L *	174
1321	ATCATTATATGAAAGTCTCTGCCACCGAGTTCCTAATTTTCTTTGTTCAAATGTAATTA	1380
1381	TAACCAGGGGTTTTCTTGGGGCCGGGAGTAGGGGGCATTCCACAGGGACAACGGTTTAGC	1440
1441	TATGAAATTGCGGGCCAAAATTTCACTTCATGTGCCTTACTGATGAGAGTACTAACTG	1500
1501	GAAAAAGGCTGAAGAGAGCAAATATATTATTAAGATGGGTGAGGATTGGCGAGTTTCT	1560
1561	AAATATTAAGACACTGATCACTAAATGAATGGATGATCTACTCGGGTCAGGATTGAAAGA	1620
1621	GAAATATTTCAACACCTCCCTGCTATACAATGGTCACCAGTGGTCCAGTTATTGTTCAAT	1680
1681	TTGATCATAAATTGCTTCAATTCAGGAGCTTTGAAGGAAGTCCAAGGAAAGCTCTAGAA	1740
1741	AACAGTATAAACTTTCAGAGGCAAAATCCTTCACCAATTTTCCACATACTTTCATGCCT	1800
1801	TGCCTAAAAAAATGAAAAGAGAGTTGGTATGTCTCATGAATGTTACACAGAAGGAGTT	1860
1861	GGTTTTCATGTCATCTACAGCATATGAGAAAAGCTACCTTTCTTTTGATTATGTACACAG	1920
1921	ATATCTAAATAAGGAAGTTTGAGTTTCACATGTATATCCCAAATACAACAGTTGCTTGTA	1980
1981	TTCAGTAGAGTTTTCTTGCCACCTATTTTGTGCTGGGTTCTACCTTAACCCAGAAGACA	2040

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[illegible]

2041	CTATGAAAAACAAGACAGACTCCACTCAAAATTATATGAACACCACTAGATACTTCCTG	2100
2101	ATCAAACATCAGTCAACATACTCTAAAGAATAACTCCAAGTCTTGCCAGGCGCAGTGGC	2160
2161	TCACACCTGTAATCCCAACTTTGGGAGGCCAAGGTGGGTGGATCATCTAAGGCCGGGA	2220
2221	GTTCAAGACCAGCCTGACCAACGTGGAGAAACCCATCTCTACTNAAAATACNAAATTAG	2280
2281	CCGGGCGTGGTAGCGCATGGCTGTAANCCTGGCTACTCAGGAGGCCGAGGCAGAANAATT	2340
2341	NCTTGAACCTGGGAGGCAGAGGTTGCGGTGAGCCCAGANCGCCATTGCACTCCAGCCT	2400
2401	GGGTAACAAGAGCAAACTCTGTCCAAAAAAAAAAAAAAAAAAAA	2442

MATCH WITH FIG. 2B

MATCH WITH FIG. 2A

FIG. 2B

40	T	P	S	A	T	A	R	Q	H	P	K	M	H	L	A	H	S	T	L	K	P	A	A	H	L	I	G	TNfbeta			
71	F	-	-	-	Q	K	L	P	E	E	P	T	D	L	S	P	G	L	-	-	P	A	A	H	L	I	G	LTbeta			
121	V	S	-	F	E	K	I	A	N	P	S	T	P	S	E	T	K	P	-	-	R	S	V	A	H	L	T	G	FASL		
38	-	-	-	-	P	-	A	L	L	H	E	R	L	R	A	N	A	T	K	N	R	M	N	Y	T	N	-	K	TNFgamma		
95	N	P	-	-	E	-	Q	-	-	-	W	L	R	A	N	A	L	L	A	N	G	V	E	L	R	D	-	N	TNFalpha		
70	D	P	S	K	Q	-	S	L	L	G	W	L	R	A	N	A	L	L	A	N	G	F	S	L	S	N	-	N	TNfbeta		
95	A	P	L	K	-	-	Q	-	-	-	W	L	R	A	N	A	L	L	A	N	G	T	Q	F	S	D	A	E	LTbeta		
149	N	P	-	-	R	S	S	I	P	L	W	L	R	A	N	A	L	L	A	N	G	V	K	Y	K	K	-	G	FASL		
61	F	L	L	I	P	E	S	G	D	Y	F	I	Y	S	Q	V	T	F	R	G	M	T	S	E	C	S	E	I	R	Q	TNFgamma
123	Q	L	V	V	P	S	E	G	L	Y	F	I	Y	S	Q	V	T	F	R	G	M	T	S	E	C	S	E	I	-	-	TNFalpha
98	S	L	L	V	P	T	S	G	I	Y	F	I	Y	S	Q	V	T	F	R	G	M	T	S	E	C	S	E	I	-	-	TNfbeta
124	G	L	A	L	P	Q	D	G	L	Y	Y	L	Y	C	L	V	G	Y	R	G	R	A	P	S	P	G	G	D	P	Q	LTbeta
177	G	L	V	I	N	E	A	G	L	Y	F	I	Y	S	Q	V	Y	F	R	G	M	T	S	E	C	S	E	I	-	-	FASL
31	A	G	R	P	N	K	P	D	S	I	T	V	V	I	T	K	V	T	D	S	Y	P	E	P	T	Q	-	-	-	-	TNFgamma
146	-	-	-	-	P	S	H	V	L	L	T	H	T	I	S	R	V	I	A	S	Y	Q	T	K	N	-	-	-	-	-	TNFalpha
125	-	-	-	-	P	S	H	V	L	L	T	H	T	I	S	R	V	I	A	S	Y	Q	T	K	N	-	-	-	-	-	TNfbeta
154	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	LTbeta	
204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FASL	

MATCH WITH FIG. 2C

MATCH WITH FIG. 2B

119	M	G	T	K	S	V	C	E	-	-	-	-	-	-	-	-	-	V	G	S	N	F	Q	P	L	Y	L	G	A	TNFgamma	
171	S	A	I	K	S	P	C	Q	-	-	-	-	-	-	-	-	-	A	E	A	P	W	Y	E	P	I	Y	L	G	G	TNFalpha
150	S	S	Q	K	M	V	Y	P	-	-	-	-	-	-	-	-	-	G	L	Q	P	W	L	H	S	M	Y	H	G	A	TNFBeta
180	E	G	A	E	T	V	T	P	-	-	-	-	-	-	-	-	-	Y	G	P	S	W	Y	T	S	V	G	F	G	G	LTbeta
223	E	E	K	R	L	N	Y	-	-	-	-	-	-	-	-	-	-	G	Y	T	Q	W	A	H	S	S	Y	L	G	A	FASL

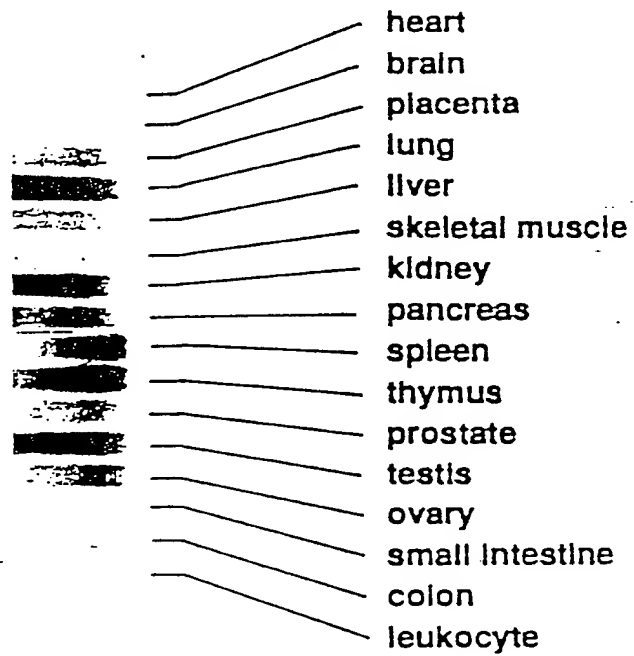
1140	M	F	S	L	Q	E	G	D	K	L	M	V	N	V	S	D	I	S	L	V	D	Y	T	K	E	D	K	T	F	F	TNFgamma
1199	W	F	Q	L	E	K	G	D	R	L	S	A	E	T	N	R	P	D	Y	L	D	F	A	E	S	G	Q	V	Y	F	TNFalpha
1172	A	F	Q	L	T	Q	G	D	Q	L	S	T	H	T	D	G	L	P	H	L	V	L	S	-	P	S	T	V	F	F	TNFbeta
2210	L	V	Q	L	R	R	G	E	R	V	Y	V	N	I	S	H	P	D	M	V	D	F	R	-	G	R	T	F	T	LTbeta	
2245	V	F	N	L	T	V	A	D	H	L	Y	V	N	I	S	Q	L	S	L	I	N	F	-	E	E	S	K	T	F	F	FASL

170	G	A	F	L	L	TNFgamma
229	G	I	I	A	L	TNFalpha
201	G	A	F	A	L	TNFbeta
239	G	A	V	M	V	LTbeta
274	G	L	Y	K	L	FASL

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# FIG. 3A

Tissue distribution of TNFgamma mRNA



# FIG. 3B

Expression of TNFgamma in HUVEC

1 2 3 4 5 6 7 8 9 10 11

Figure 4

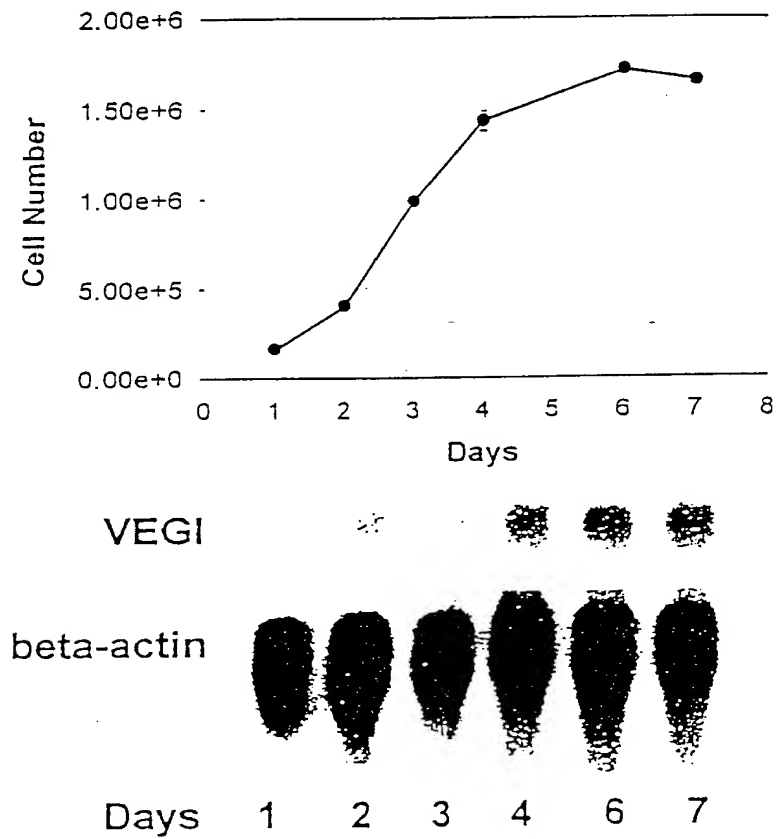
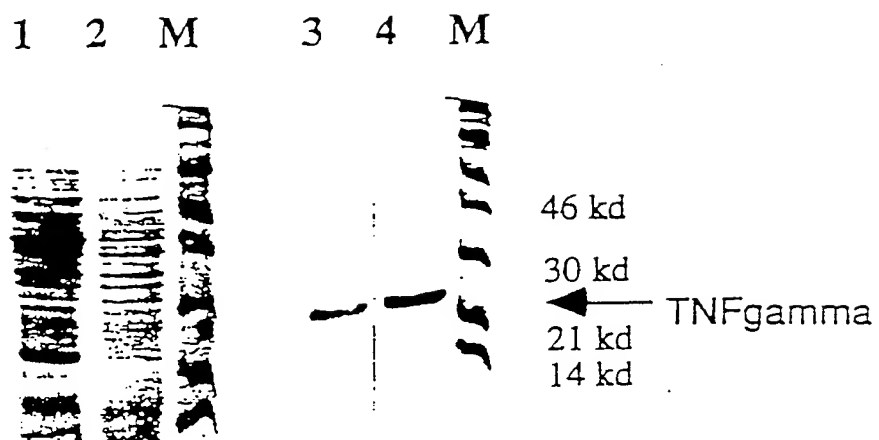




Figure 5

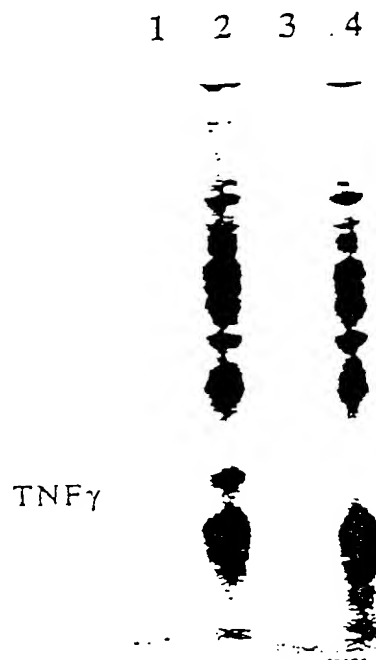
Expression of TNF $\gamma$  in *E. coli*



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Figure 6

Expression of TNF $\gamma$  in baculovirus system



658020" 62194260

Figure 7Aa  
Control

WEHI164

Figure 7Ab  
TNF $\alpha$

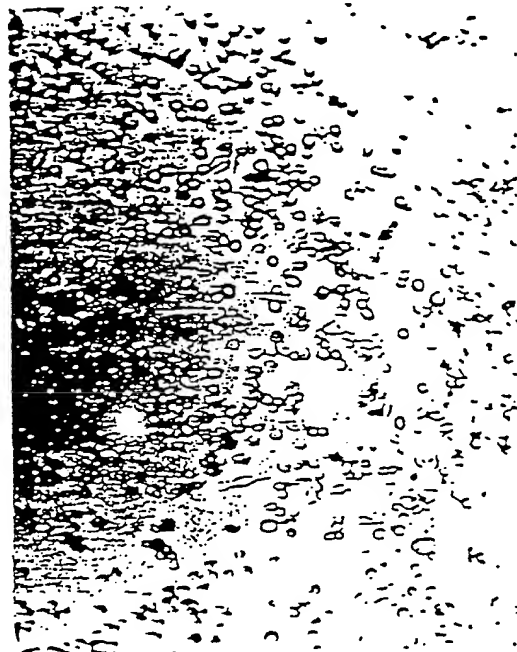
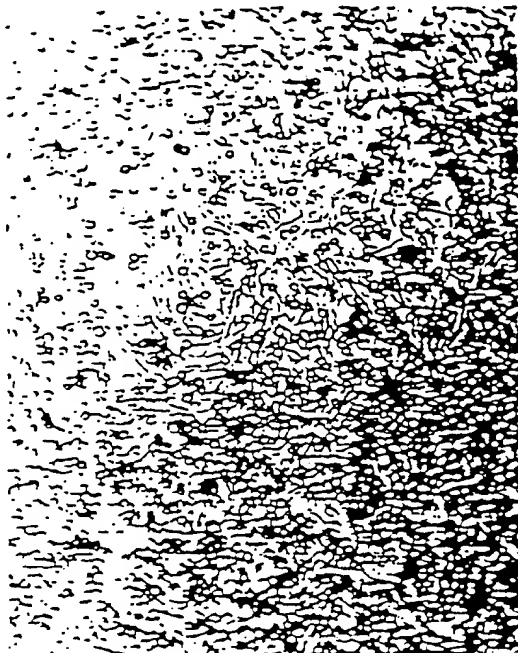
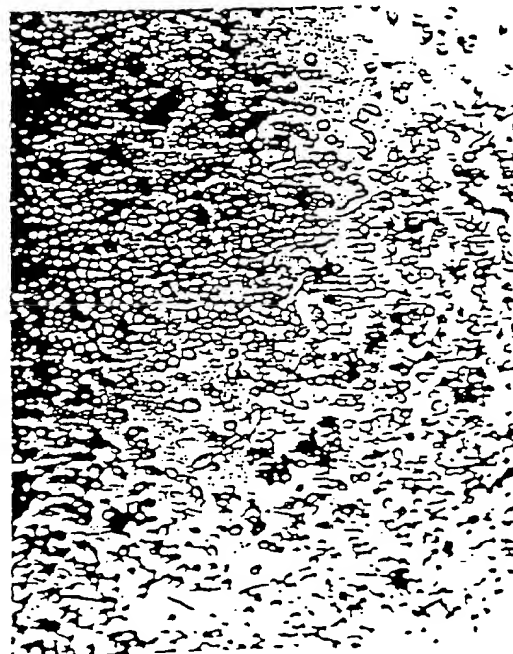
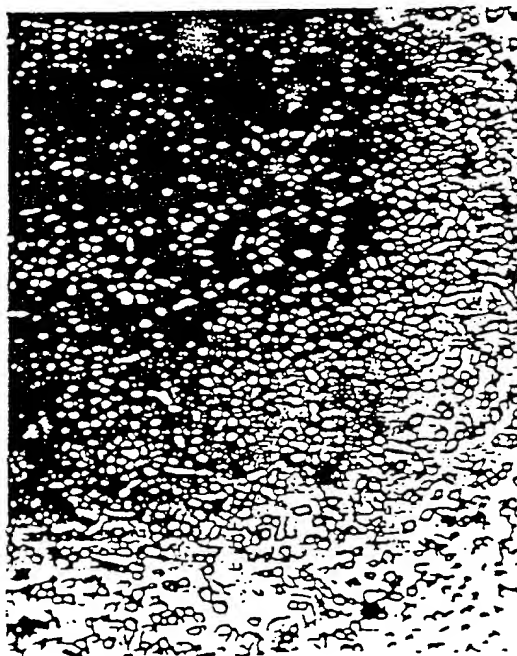


Figure 7Ac  
TNF $\gamma$

Figure 7Ad  
TNF $\beta$



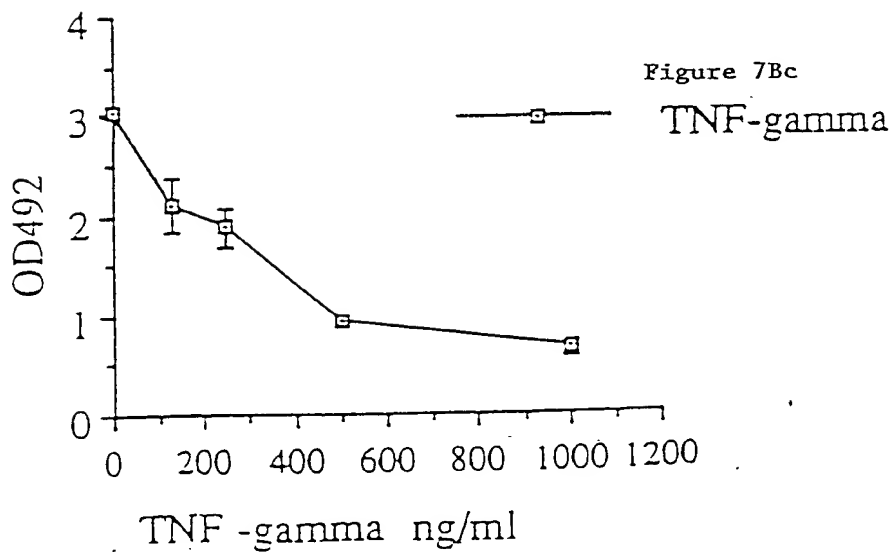
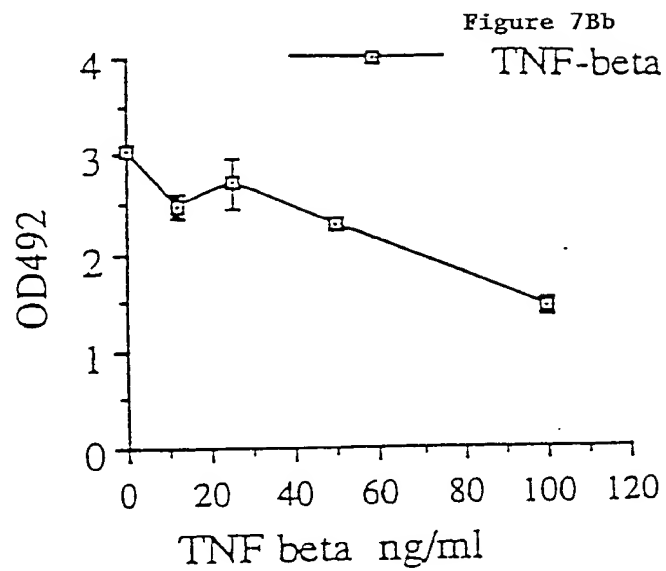
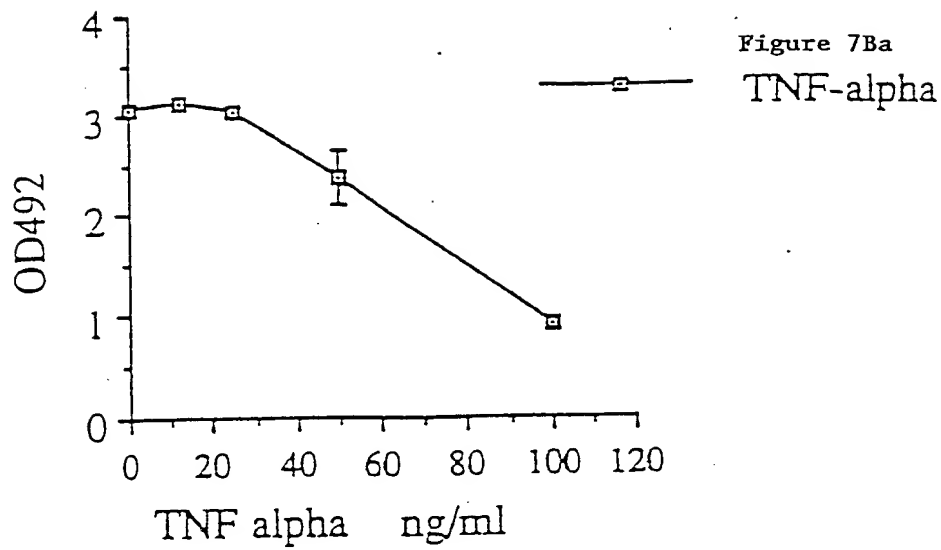


Figure 8A  
Control

L929

Figure 8B  
TNF $\alpha$

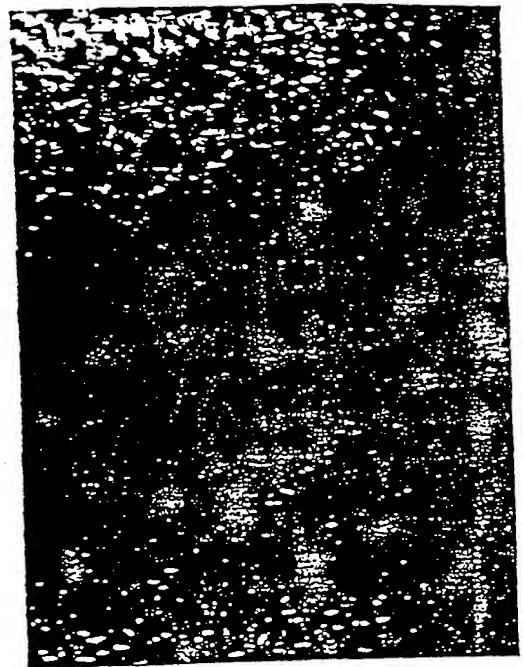
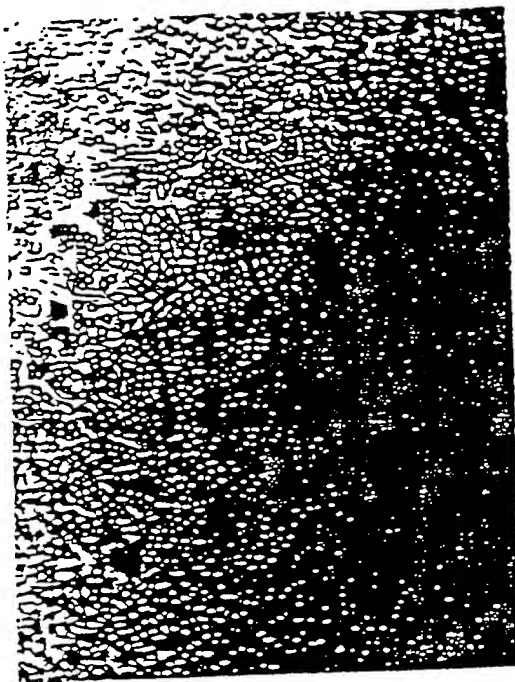
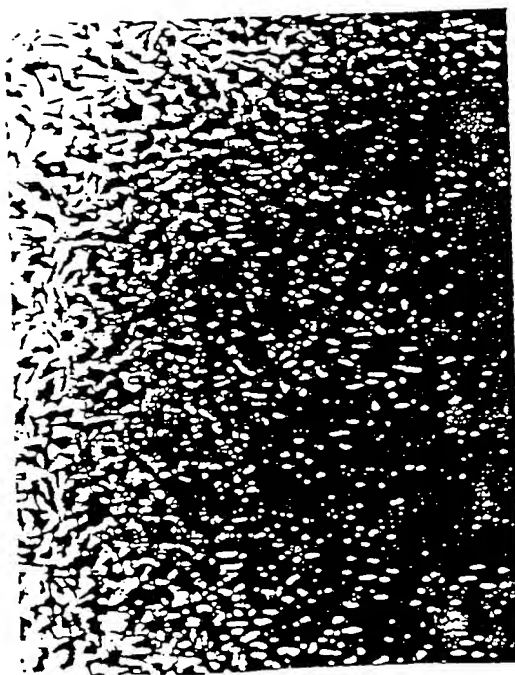


Figure 8C  
TNF $\gamma$

Figure 8D  
TNF $\beta$



000020" SAT 94260

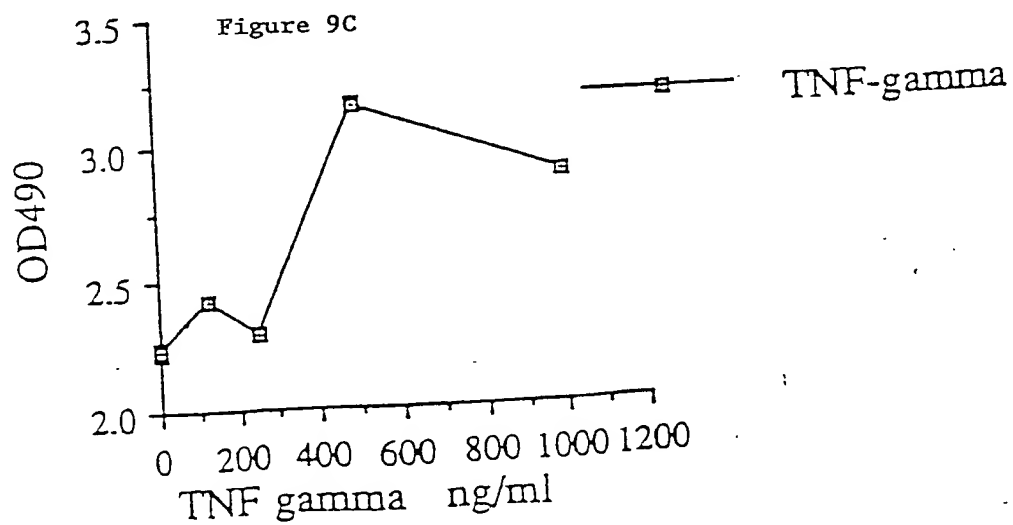
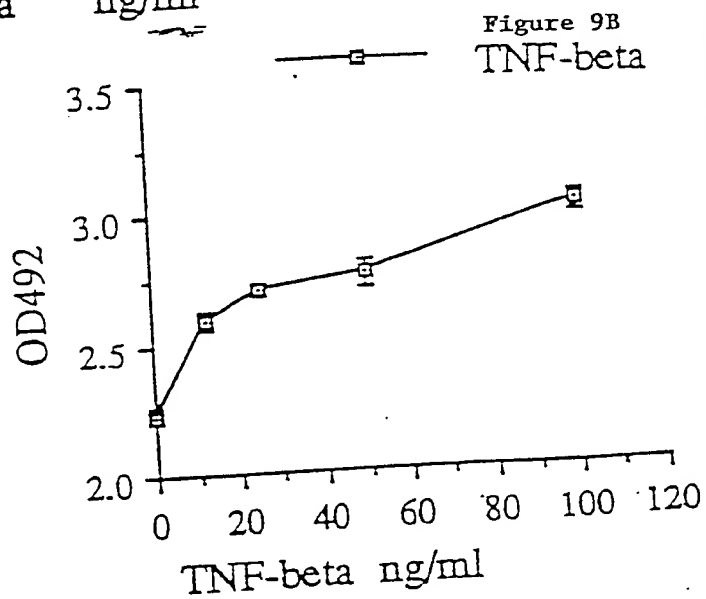
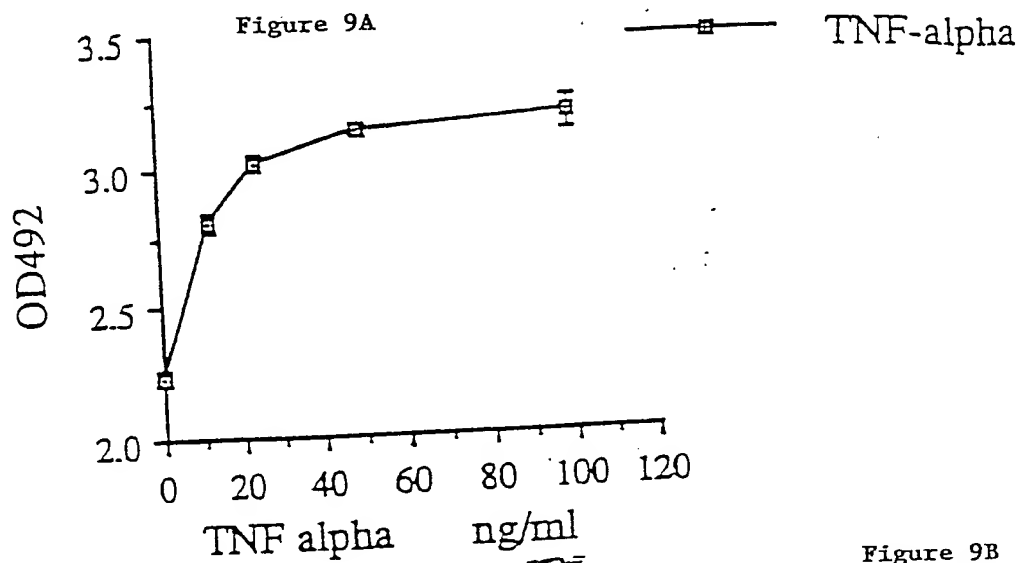
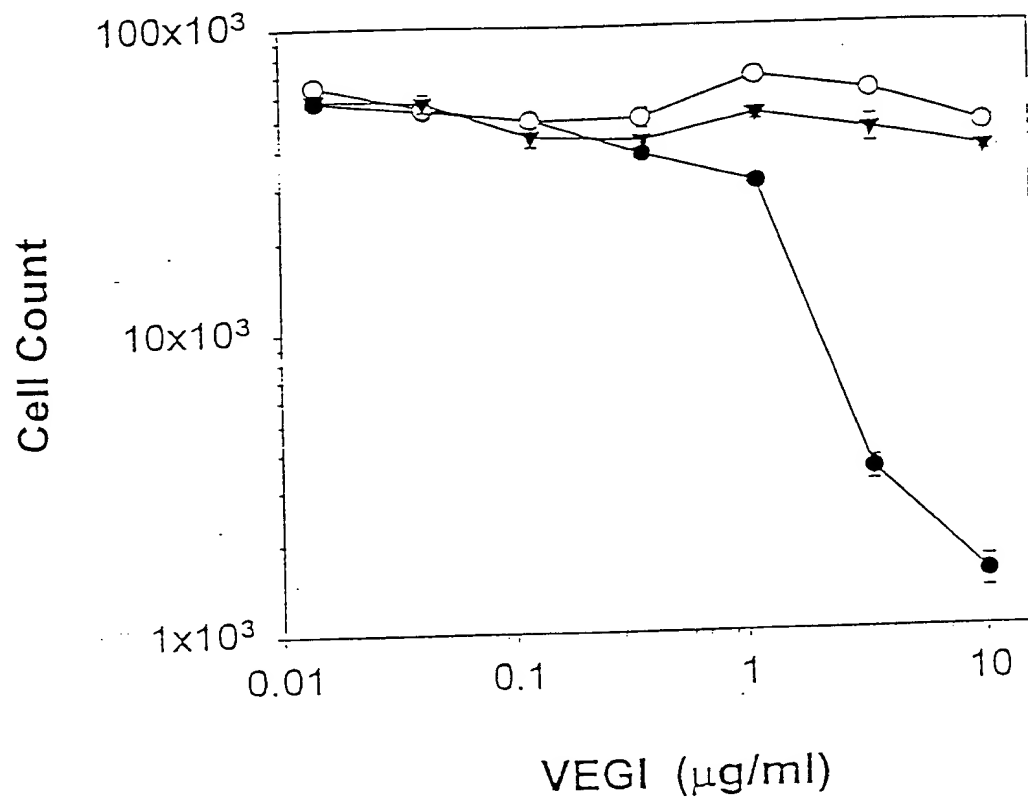


Figure 10



HL60

Figure 11A  
Control

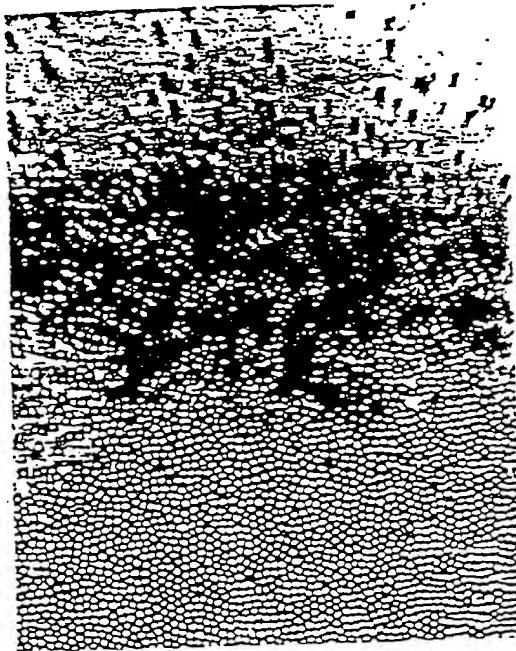


Figure 11B  
TNF $\alpha$

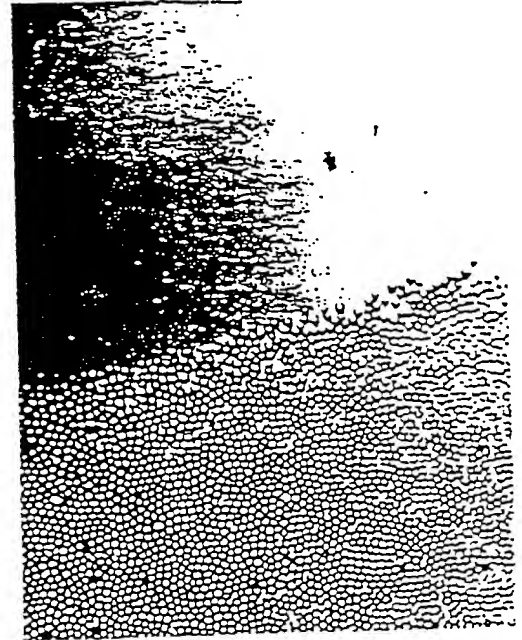


Figure 11C  
TNF $\gamma$



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662020 SET 91260

Figure 12

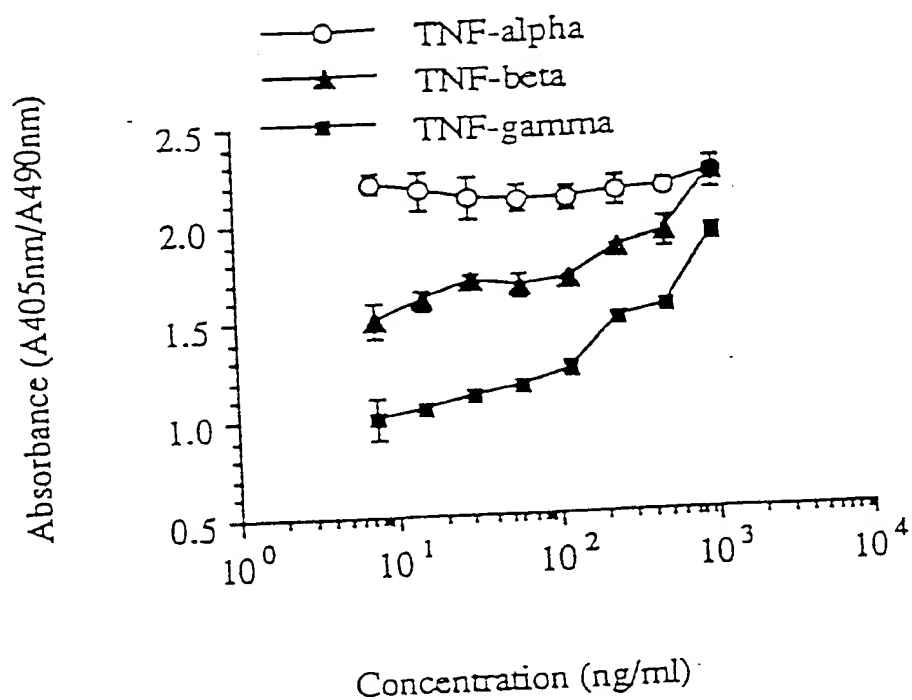


Figure 13

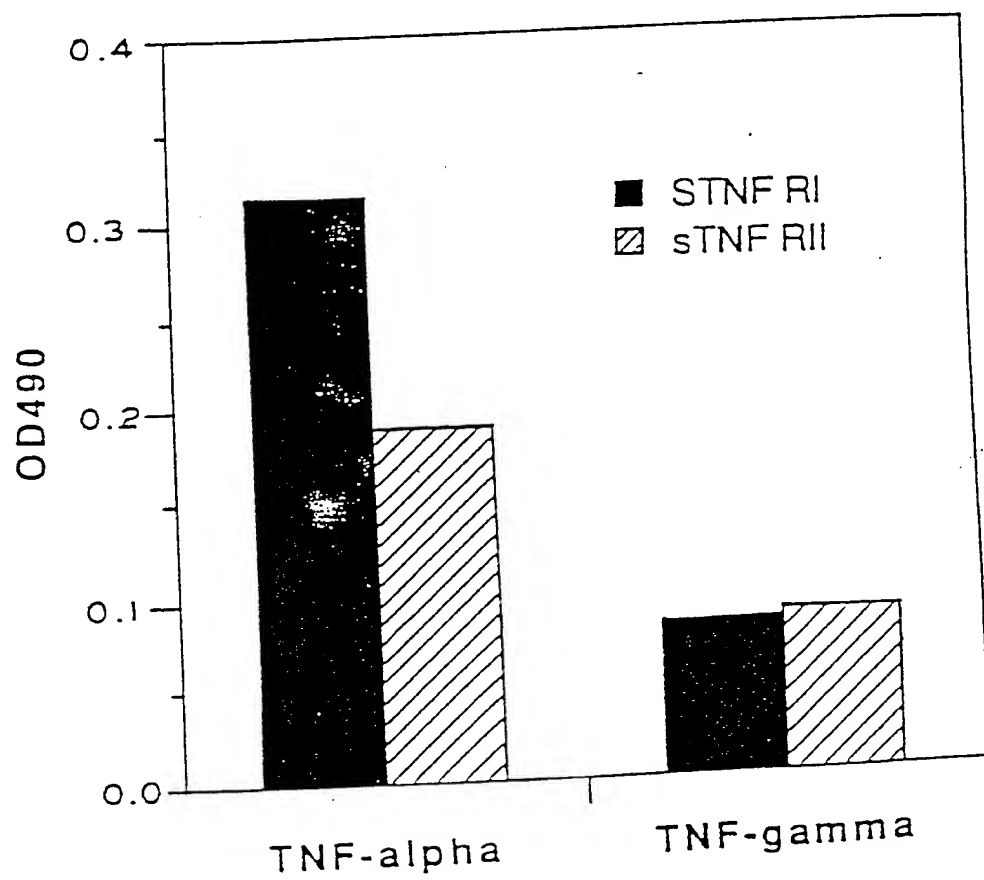


Figure 14

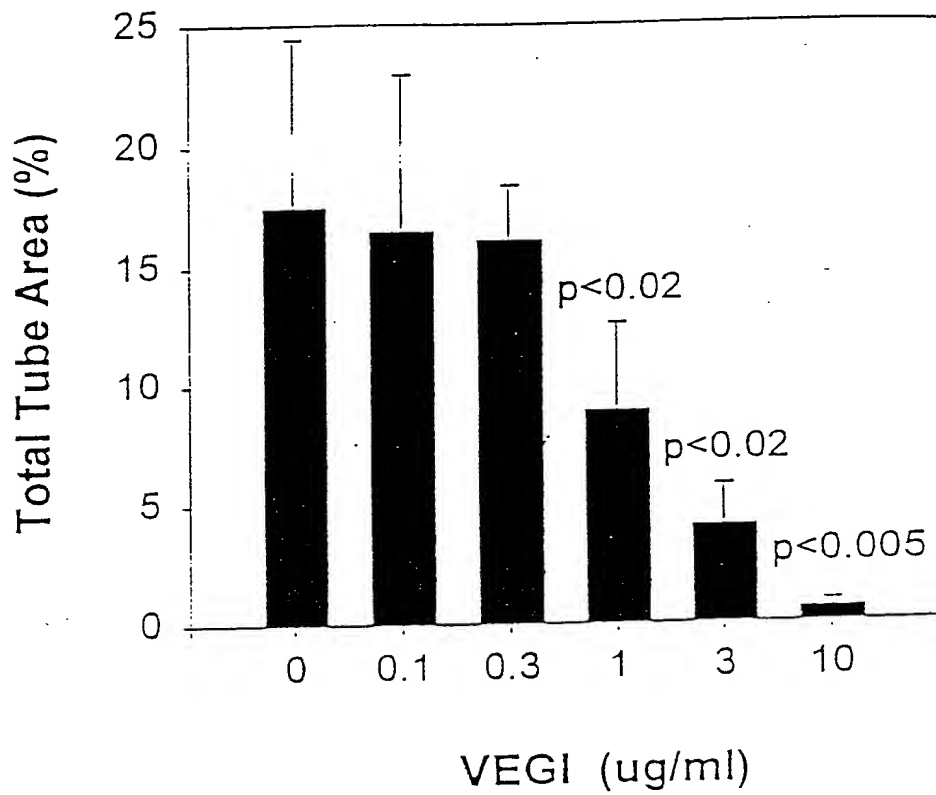


Figure 15

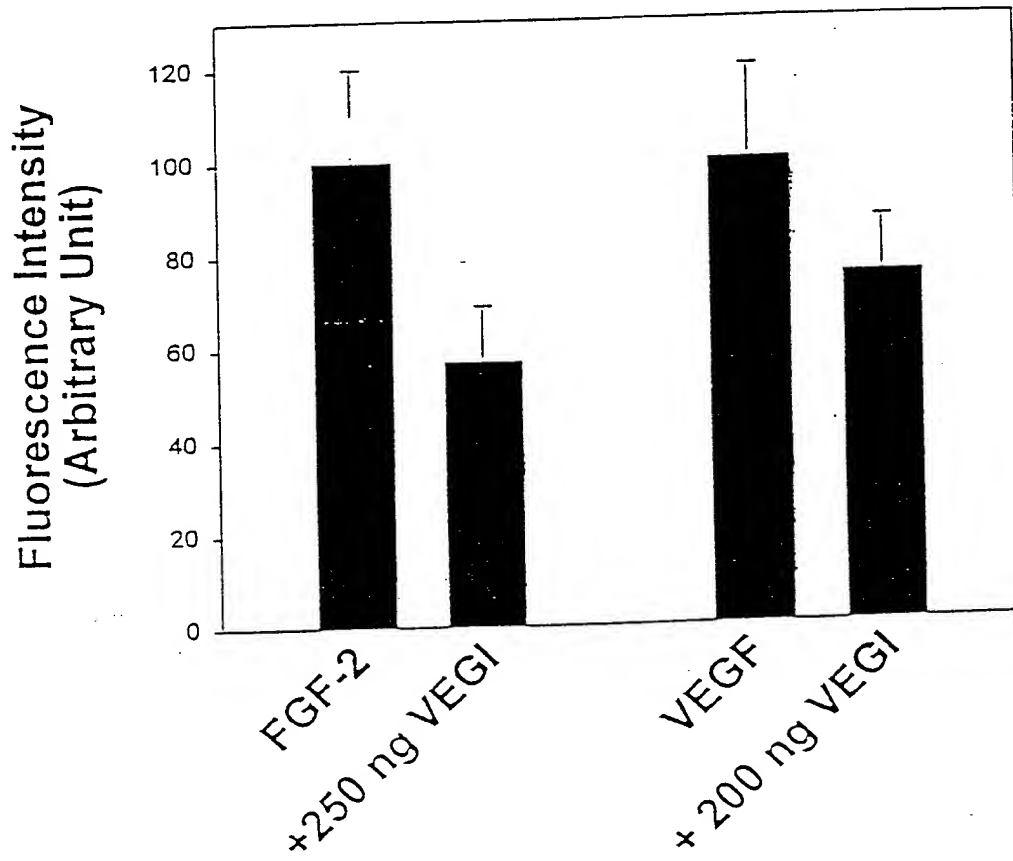


Figure 16A

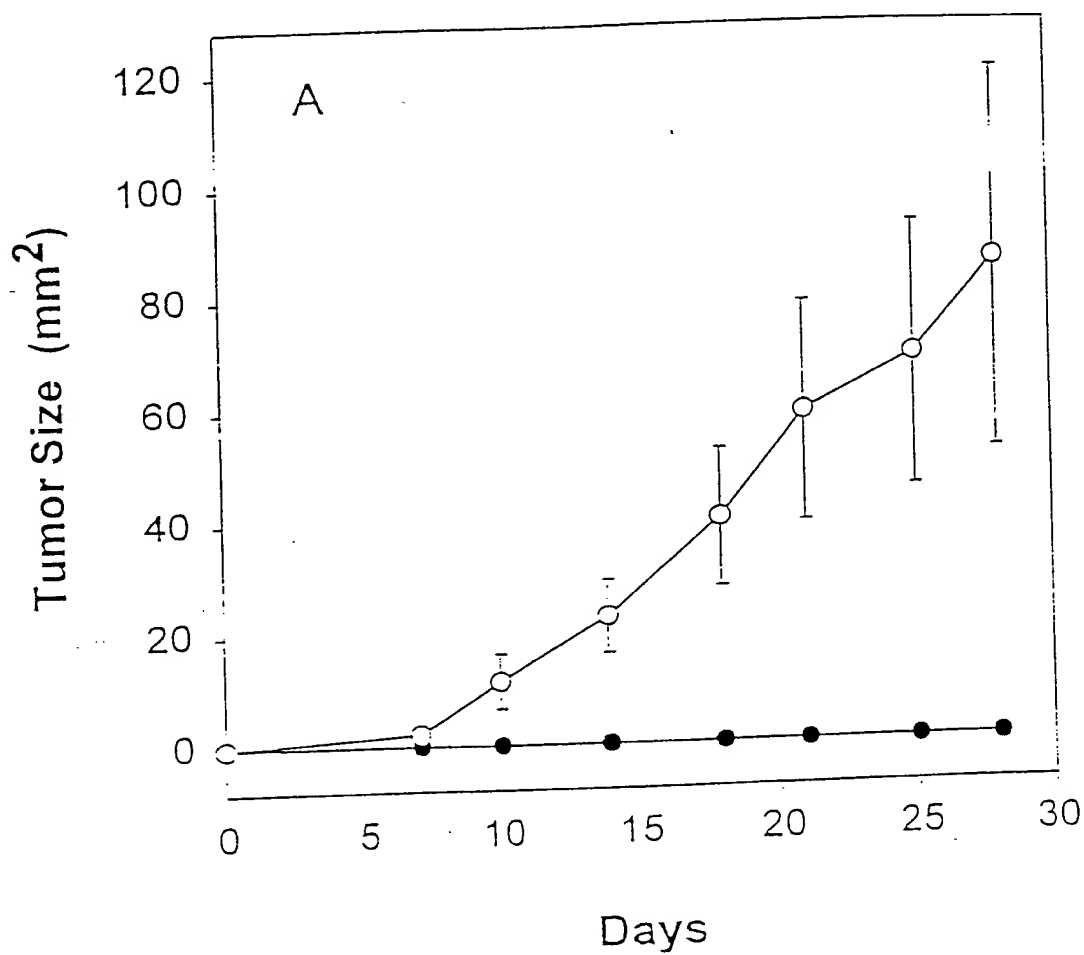


Figure 16B

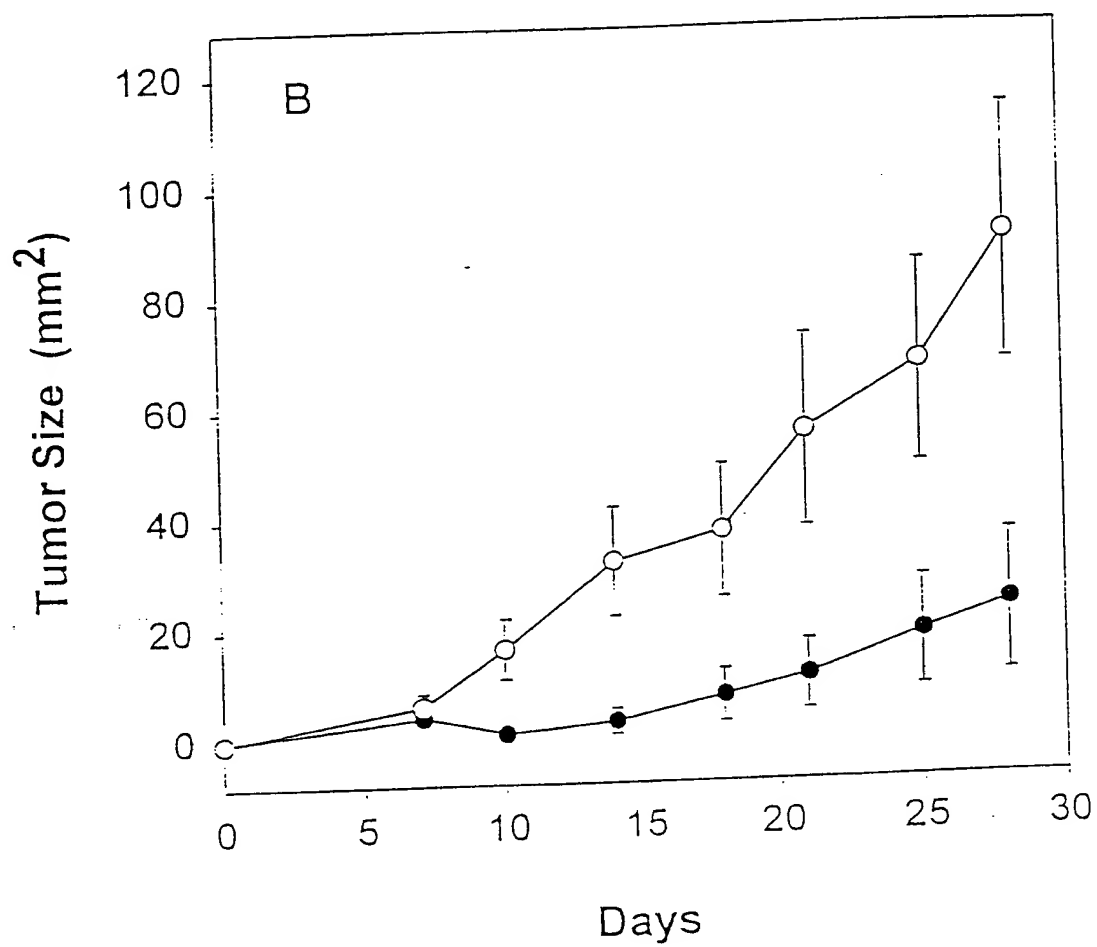
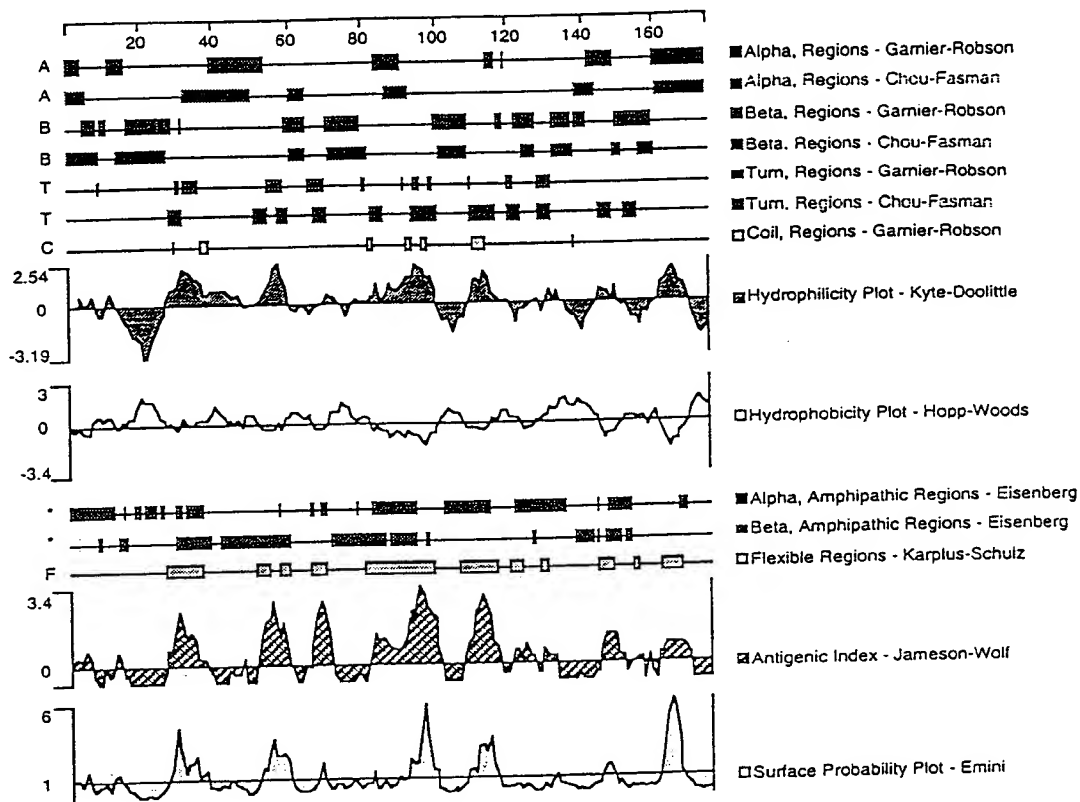


Figure 17  
TNF-gamma Polypeptide Analysis



0946139-020899

**Figure 18A**

TNF-gamma-alpha	1	CCCCAATCAAGAGAAATTCCATACTATCACCAGTTGGCCGACTTTC	49
		. . . . .	
TNF-gamma-alpha	50	TCTAGTGCAGAAATCCAAGGCACCTCACACCTAGAGTTCCTATACCTCTG	99
		. . . . .	
TNF-gamma-alpha	100	AGACTCCAGAGGAAAGAACAAGACAGTGCAGAAGGATATGTTAGAACCCA	149
		. . . . .	
TNF-gamma-alpha	150	CTGAAAACCTAGAAGGTTGAAAAGGAAGCATACCCTCCTGACCTATAAGA	199
		. . . . .	
TNF-gamma-alpha	200	AAATTTTTCAGTCTGCAGGGGGATATCCTTGTTGGCCCAAGACATTGGTGT	249
		. . . . .	
TNF-gamma-alpha	250	ATCATTTGACTAAGAGGAAATTATTTGTGGTGAGCTCTGAGTGAGGATTA	299
		. . . . .	
TNF-gamma-alpha	300	GGACCAGGGAGATGCCAAGTTTCTATCACTTACCTCATGCCTGTAAGACA	349
		. . . . .	
TNF-gamma-alpha	350	AGTGTTTTGTTC CAATTGATGAATGGGGAGAAAAACAGTTCAGCCAATCAC	399
		. . . . .	
TNF-gamma-alpha	400	TTATGGGCACAGAATGGAATTTGAAGGGTCTGGTGCCTGCCCTTGTCATA	449
		. . . . .	
TNF-gamma-alpha	450	CGTAAACAAGAGAGGCATCGATGAGTTTTATCTGAGTCATTTGGGAAAGG	499
		. . . . .	
TNF-gamma-alpha	500	ATAATTCTTGCACCAAGCCATTTTCCTAAACACAGAAGAATAGGGGGATT	549
		. . . . .	
TNF-gamma-alpha	550	CCTTAACCTTCA TTGTTCTCCAGGATCATAGGTCTCAGGATAAATTAAAA	599
TNF-gamma-beta	1	ATGGCCGAGGATCTGGGACTGAGCTTTGGGGAAACAGCCAGTGTGGAA	48
		. . . . .	
TNF-gamma-alpha	600	ATTTTTCAGGT CAGACCACTCAGTCTCAGAAAGGCAAAGTAATTGCCCCA	649
TNF-gamma-beta	49	ATGCTGCCAGAGCACGGCAGCTGCAGGCCCAAGGCCAGGAGCAGCAGCGC	98
		. . . . .	
TNF-gamma-alpha	650	GGTCACTAGTCCAAGATGTTATTCTCTTTGAACAAATGTGTATGTCCAGT	699
TNF-gamma-beta	99	ACGCTGGGCTCTCACCTGCTGCCTGGTGTGCTCCCCTTCCTTGCAGGAC	148
		. . . . .	
TNF-gamma-alpha	700	CACATATCTTTCATTCATTCTCCCAAAGCAGTTTTTAGCTGTTAGGTA	749
TNF-gamma-beta	149	TCACCACATACCTGCTTGTCAGCCAGCTCCGGGCCAGGGAGAGGCCTGT	198
		. . . . .	
TNF-gamma-alpha	750	TATTCGATCACTTTAGTCTATTTTGAAAATGATATGAGACGCTTTTTAAG	799
TNF-gamma-beta	199	GTGCAGTTCCAGGCTCTAAAAGGACAGGAGTTTGCACCTTCACATCAGCA	248



Figure 18B

TNF-gamma-alpha vs. TNF-gamma-beta

TNF-gamma-alpha	800	CAAAGTCTACAGTTTCCCAATGAGAAAATTAATCCTCTTCTTGTCTTTC	849
TNF-gamma-beta	249	AGTTTATGCACCTCTTAGAGCAGACGGAGATAAGCCAAGGGCACACCTGA	298
TNF-gamma-alpha	850	CAGTTGTGAGACAACTCCACACAGCACTTTAAAAATCAGTTCCAGCT	899
TNF-gamma-beta	299	CAGTTGTGAGACAACTCCACACAGCACTTTAAAAATCAGTTCCAGCT	348
TNF-gamma-alpha	900	CTGCACTGGGAACATGAAC TAGGCCTGGCCTTCACCAAGAACCGAATGAA	949
TNF-gamma-beta	349	CTGCACTGGGAACATGAAC TAGGCCTGGCCTTCACCAAGAACCGAATGAA	398
TNF-gamma-alpha	950	CTATACCAACAAATTCCTGCTGATCCAGAGTCGGGAGACTACTTCATTT	999
TNF-gamma-beta	399	CTATACCAACAAATTCCTGCTGATCCAGAGTCGGGAGACTACTTCATTT	448
TNF-gamma-alpha	1000	ACTCCAGGTCACATTCCGTTGGGATGACCTCTGAGTGCAGTGAAATCAGA	1049
TNF-gamma-beta	449	ACTCCAGGTCACATTCCGTTGGGATGACCTCTGAGTGCAGTGAAATCAGA	498
TNF-gamma-alpha	1050	CAAGCAGGCCGACCAACAAGCCAGACTCCATCACTGTGGTCATCACCAA	1099
TNF-gamma-beta	499	CAAGCAGGCCGACCAACAAGCCAGACTCCATCACTGTGGTCATCACCAA	548
TNF-gamma-alpha	1100	GGTAACAGACAGCTACCCCTGAGCCAACCCAGCTCCTCATGGGGACCAAGT	1149
TNF-gamma-beta	549	GGTAACAGACAGCTACCCCTGAGCCAACCCAGCTCCTCATGGGGACCAAGT	598
TNF-gamma-alpha	1150	CTGTATGCGAAGTAGGTAGCAACTGGTTCCAGCCCATCTACCTCGGAGCC	1199
TNF-gamma-beta	599	CTGTATGCGAAGTAGGTAGCAACTGGTTCCAGCCCATCTACCTCGGAGCC	648
TNF-gamma-alpha	1200	ATGTTCTCCTTGCAAGAAGGGGACAAGCTAATGGTGAACGTCAGTGACAT	1249
TNF-gamma-beta	649	ATGTTCTCCTTGCAAGAAGGGGACAAGCTAATGGTGAACGTCAGTGACAT	698
TNF-gamma-alpha	1250	CTCTTTGGTGGAATTACACAAAAGAAGATAAAACCTTCTTTGGAGCCTTCT	1299
TNF-gamma-beta	699	CTCTTTGGTGGAATTACACAAAAGAAGATAAAACCTTCTTTGGAGCCTTCT	748
TNF-gamma-alpha	1300	TACTATAGGAGGAGAGCAAATATCATTTATATGAAAGTCCTCTGCCACCGA	1349
TNF-gamma-beta	749	TACTATAGGAGGAGAGCAAATATCATTTATATGAAAGTCCTCTGCCACCGA	798
TNF-gamma-alpha	1350	GTTCCCTAATTTTCTTTGTTCAAATGTAATTATAACCAGGGGTTTCTTTGG	1399
TNF-gamma-beta	799	GTTCCCTAATTTTCTTTGTTCAAATGTAATTATAACCAGGGGTTTCTTTGG	848
TNF-gamma-alpha	1400	GGCCGGGAGTAGGGGGCATTCCACAGGGACAACGGTTTAGCTATGAAATT	1449
TNF-gamma-beta	849	GGCCGGGAGTAGGGGGCATTCCACAGGGACAACGGTTTAGCTATGAAATT	897



**TNF-gamma-alpha vs. TNF-gamma-beta**

TNF-gamma-alpha	2249	AAACCCCATCTCTACTNAAAATACNAAATTAGCCGGGCGTGGTAGCGCAT	2298
		.	.
TNF-gamma-alpha	2299	GGCTGTAA NCCTGGCTACTCAGGAGGCCGAGGCAGAANAATTNCTTG AAC	2348
		.	.
TNF-gamma-alpha	2349	TGGGGAGGCAGAGGTTGCGGTGAGCCCAGANCGGCCATTGCACTCCAGC	2398
		.	.
TNF-gamma-alpha	2399	CTGGGTAACAAGAGCAA AACTCTGTCCA AAAAAAAAAAAAAA	2442

Parameter	Value	Unit
1. $\alpha_1$	0.001	1/s
2. $\alpha_2$	0.001	1/s
3. $\alpha_3$	0.001	1/s
4. $\alpha_4$	0.001	1/s
5. $\alpha_5$	0.001	1/s
6. $\alpha_6$	0.001	1/s
7. $\alpha_7$	0.001	1/s
8. $\alpha_8$	0.001	1/s
9. $\alpha_9$	0.001	1/s
10. $\alpha_{10}$	0.001	1/s
11. $\alpha_{11}$	0.001	1/s
12. $\alpha_{12}$	0.001	1/s
13. $\alpha_{13}$	0.001	1/s
14. $\alpha_{14}$	0.001	1/s
15. $\alpha_{15}$	0.001	1/s
16. $\alpha_{16}$	0.001	1/s
17. $\alpha_{17}$	0.001	1/s
18. $\alpha_{18}$	0.001	1/s
19. $\alpha_{19}$	0.001	1/s
20. $\alpha_{20}$	0.001	1/s
21. $\alpha_{21}$	0.001	1/s
22. $\alpha_{22}$	0.001	1/s
23. $\alpha_{23}$	0.001	1/s
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37. $\alpha_{37}$	0.001	1/s
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88. $\alpha_{88}$	0.001	1/s
89. $\alpha_{89}$	0.001	1/s
90. $\alpha_{90}$	0.001	1/s
91. $\alpha_{91}$	0.001	1/s
92. $\alpha_{92}$	0.001	1/s
93. $\alpha_{93}$		

[illegible]

TNF-gamma-beta	1	MAEDLGLSFGETASVEMLPEHGSCRPKARSSSARWALTCCLLVLLPFLAGL	50
TNF-gamma-alpha	1	MRRFLSKVYSFPMRKLILFLVFP	23
TNF-gamma-beta	51	TTYLLVSQQLRAQGEACVQFQALKGQEFAPSHQQVYAPLRADGDKPRAHLT	100
TNF-gamma-alpha	24	VVRQTPTQHFKNQFPALHWEHELGLAFTKNRMNYTNKFLLIPESGDYFIY	73
TNF-gamma-beta	101	VVRQTPTQHFKNQFPALHWEHELGLAFTKNRMNYTNKFLLIPESGDYFIY	150
TNF-gamma-alpha	74	SQVTFRGM TSECSEIRQAGRPNKPDSITVVITKVTDSYPEPTQLLMGTKS	123
TNF-gamma-beta	151	SQVTFRGM TSECSEIRQAGRPNKPDSITVVITKVTDSYPEPTQLLMGTKS	200
TNF-gamma-alpha	124	VCEVGSNWFQPIIYLGAMFSLQEGDKLMVNVS DISLVDYTKEDKTFFGAFL	173
TNF-gamma-beta	201	VCEVGSNWFQPIIYLGAMFSLQEGDKLMVNVS DISLVDYTKEDKTFFGAFL	250
TNF-gamma-alpha	174	L 174	
TNF-gamma-beta	251	L 251	

Figure 20A  
TNF-gamma-beta

1 ATGCCCGAGGATCTGGGACTGAGCTTTGGGGAAACAGCCAGTGTGGAAATGCTGCCAGAG 60  
1 M A E D L G L S F G E T A S V E M L P E 20

61 CACGGCAGCTGCAGGCCCAAGGCCAGGAGCAGCAGCGCACGCTGGGCTCTCACCTGCTGC 120  
21 H G S C R P K A R S S S A R W A L T C C 40

121 CTGGTGTGCTCCCCCTTCCTTGCAGGACTCACCACATACCTGCTTGTTCAGCCAGCTCCGG 180  
41 L V L L P F L A G L T T Y L L V S Q L R 60

181 GCCCAGGGAGAGGCTGTGTGCAGTTCCAGGCTCTAAAAGGACAGGAGTTTGCACCTTCA 240  
61 A Q G E A C V Q F Q A L K G Q E F A P S 80

241 CATCAGCAAGTTTATGCACCTCTTAGAGCAGACGGAGATAAGCCAAGGGCACACCTGACA 300  
81 H Q Q V Y A P L R A D G D K P R A H L T 100

301 GTTGTGAGACAACTCCACACAGCACTTTAAAAATCAGTTCCAGCTCTGCACTGGGAA 360  
101 V V R Q T P T Q H F K N Q F P A L H W E 120

361 CATGAAGTGGCCTGGCCTTCACCAAGAACCGAATGAAGTATACCAACAAATTCCTGCTG 420  
121 H E L G L A F T K N R M N Y T N K F L L 140

421 ATCCCAGAGTCGGGAGACTACTTCATTTACTCCCAGGTCACATTCCGTGGGATGACCTCT 480  
141 I P E S G D Y F I Y S Q V T F R G M T S 160

481 GAGTGCAGTGAAATCAGACAAGCAGGCCGACCAACAAGCCAGACTCCATCACTGTGGTC 540  
161 E C S E I R Q A G R P N K P D S I T V V 180

541 ATACCAAGGTAACAGACAGCTACCCTGAGCCAACCCAGCTCCTCATGGGGACCAAGTCT 600  
181 I T K V T D S Y P E P T Q L L M G T K S 200

601 GTATGCGAAGTAGGTAGCAACTGGTTCAGCCCATCTACCTCGGAGCCATGTTCTCCTTG 660  
201 V C E V G S N W F Q P I Y L G A M F S L 220

661 CAAGAAGGGGACAAGCTAATGGTGAACGTCAGTGACATCTCTTTGGTGGATTACACAAAA 720  
221 Q E G D K L M V N V S D I S L V D Y T K 240

721 GAAGATAAAACCTTCTTTGGAGCCTTCTTACTATAGGAGGAGAGCAAATATCATTATATG 780  
241 E D K T F F G A F L L 251

781 AAAGTCCTCTGCCACCGAGTTCCTAATTTTCTTTGTTCAAATGTAATTATAACCAGGGGT 840

841 TTTCTTGGGGCCGGGAGTAGGGGCATTCCACAGGGACAACGGTTTAGCTATGAAATTTGG 900

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**Figure 20B**  
**TNF-gamma-beta**

901 GGCCCAAATTTACACTTCATGTGCCTTACTGATGAGAGTACTAACTGGAAAAAGGCTG 960  
961 AAGAGAGCAAATATATTATTAAGATGGGTTGGAGGATTGGCGAGTTTCTAAATATTAAGA 1020  
1021 CACTGATCACTAAATGAATGGATGATCTACTCGGGTCAGGATTGAAAGAGAAATATTICA 1080  
1081 ACACCTTCCTGCTATACAATGGTCACCAGTGGTCCA 1116

663020 66T64450